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Welcome to the last issue for 1999.

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This edition of **Census Update** sees the continuation of the census user consultation phase. An important aspect of this process is the release of **ABS Views on Census Output Strategy** and the accompanying questionnaire.

Please take the time to read the Information Paper and to fill out the questionnaire. We need your views and opinions in order to make 2001 Census products and services even more relevant to the needs of our clients.

On other ABS web site developments, there is now a 'Census' button on the ABS homepage. This button gives you access to information on 1996 Census products and services. As the 2001 Census approaches, more and more information will be added about where things are for 2001.

This edition also includes a number of articles on how census data is required and being used in everyday life by a number of different organisations.

Finally, we would like to say a big thank you to Carolyn Kennedy who worked on **Census Update** for a number of years. Carolyn has recently taken on a new role in the ABS. Her

involvement with this magazine was considerable over the years, ensuring that clients were informed and aware of events from each census.

Katherine Lee

Census taking in Central Asia

Census taking in Central Asia

Martin Butterfield, Director of Census Processing & User Services, recently spent three weeks in Kyrgyzstan as part of a United Nations delegation and has this to report:

The United Nations, has over the years, issued a series of handbooks and technical reports intended to assist countries in conducting population and housing censuses. In 1998, the Australian Bureau of Statistics' Census Program drafted a manual on how to manage a census for the United Nations Statistics Division (UNSD). To maximise the value of the manual in the round of censuses being conducted in 2000, the draft manual was intended for use in workshops run by UNSD in 1999.

The first of these workshops was run in Bishkek, the capital of Kyrgyzstan in May/June 1999. Seven countries participated in the workshop: Kyrgyzstan, Kazakstan, Tadjikistan, Uzbekistan, Azerbaijan, Turkmenistan and Mongolia.

Five members of the UN team presented at the workshop and all came from different countries (including Australia, Indonesia and Italy). The members brought with them census-taking experiences from an even wider range of countries, including: Laos, China, Palestine, Yemen, South Africa, Ethiopia and Colombia.

A dominant factor in the workshop was the transitional nature of the Central Asian societies. Until the early 1990s, they had all been part of the Soviet Union and were now experiencing the process of transition to a market-based economy. An immediate benefit of this transition is that there is considerable pride in undertaking, and participating in, their first national census. This also provides a focus for the State Statistics Committee to ensure that response rates are high.

As a considerable proportion of the seven countries' populations are unemployed, allowances must be made when developing recruitment and remuneration practices. Unemployed people who are involved in the census receive a full wage for their workload. State employees such as teachers (who made up about 50% of the collection workforce in Kazakstan), on the other hand, only receive a 'bonus' because they continue to receive their normal salary.

The countries all present interesting logistical challenges in conducting a census. Kyrgyzstan and Tadjikistan are very mountainous while Turkmenistan is 80% desert. In all countries the roads could be expected to be of very poor quality due to low maintenance. Fuel for trucks is very expensive (as a proportion of total costs of the census, transport was about 9% in Central Asia compared to approximately 3% in Australia).

Further challenges arise in these countries due to the presence of a significant nomadic population. This leads many countries to run their censuses in winter as the population is more readily countable. By way of contrast, Tadjikistan is planning to undertake its high

altitude census (areas above 4,000 metres) in October, before mountain passes get snowed in for winter.

The forms are generally prepared in both Russian and the relevant national language. Once the data is collected, a wide range of means are envisaged for capturing data from the forms. These range from full character recognition, as intended for Australia, to a hybrid system based on use of a mouse to enter data through pick lists.

A particularly innovative technique used to boost response rates in Kyrgyzstan was to present prizes to selected people who had registered to complete a census form. The high point of this was the inducement offered by the Mayor of Bishkek: one lucky respondent will score a new apartment by filling in their form!

Using CLIB96 in Queensland's Public Libraries

Using CLIB96 in Queensland's Public Libraries

Developed exclusively for the library community, CLIB96 provides a snapshot of Australia, containing a broad range of 1996 Census data. Here is just one example of how CLIB96 is being put to good use in libraries throughout Queensland. (This case study is provided to **Census Update** by Marian McHugh, Senior Librarian, Multimedia Training, Public Libraries Division, State Library of Queensland).

Over 100 public libraries in rural and remote Queensland currently have access, at their fingertips, to census information.

The Country Lending Service (CLS) is a partnership between the local governments and the State Library of Queensland to provide high quality library services to rural Queenslanders. Local governments serving populations of less than 20,000 people each are eligible to participate in the CLS. Of the 320 public libraries in Queensland, 153 belong to the CLS, representing 83 local governments.

During 1998, staff of the State Library of Queensland's Public Libraries Division (PLD) installed computers in libraries throughout Queensland as part of the OPAL (Online Public Access in Libraries) project.

Staff at the ABS trained PLD librarians in the use of CLIB96 and, in turn, this information was then passed on to the various libraries within the state. Staff at PLD were given written instructions for using CLIB96, including installation instructions, a tutorial and a few questions to get library staff started. This package is also used as part of training courses held for CLS library staff in Brisbane.

Since CLIB96 was introduced to public libraries in rural Queensland, it has received a good deal of use, not only by library staff but also by library patrons. Many libraries have been able to use the information provided by CLIB96 to help improve resources in their local governments.

The ABS, through programs such as the LEP, is ensuring that the wider community is able to access data and information contained in products such as CLIB96. If you require information on any 1996 Census product or service please contact the ABS in your State or Territory or visit our census page online

Socio-Economic Indexes for Areas 96 - Your Questions Answered

SOCIO-ECONOMIC INDEXES FOR AREAS 96 - YOUR QUESTIONS ANSWERED

Paul Schubert from the ABS' Methodology Division answers some commonly asked questions about Socio-Economic Indexes For Areas 96 (SEIFA96).

Q: What are the socio-economic indexes?

A: The socio-economic indexes are five summary measures derived from the 1996 Census of Population and Housing to measure different conditions by geographic area. Each index summarises a different aspect of the socio-economic conditions in an area. The indexes have been obtained by summarising the information from a variety of underlying social and economic factors, each index using a different set of underlying variables.

The five indexes are:

- Urban Index of Relative Socio-Economic Advantage
- Rural Index of Relative Socio-Economic Advantage
- Index of Relative Socio-Economic Disadvantage
- Index of Economic Resources
- Index of Education and Occupation

Q: Can I interpret low scores on the Indexes of Advantage as indicators of disadvantage?

A: No. It is important to remember that different variables are used in the construction of each index. It is recommended that you use the Indexes of Advantage as indicators of advantaged status only, and the Index of Relative Socio-Economic Disadvantage as an indicator of disadvantage status.

Q: How can I compare the index scores for different areas?

A: Different areas can be ranked according to the value of their scores: a higher score will indicate an area of relative socio-economic advantage.

However, you need to be careful in interpreting the results, because the indexes are 'original measures' and not 'interval measures'. That is, using the indexes to order the Collection Districts (CD) will provide a meaningful result whereas using other arithmetic relationships between index values will not. For example, a CD with an index value of 1200 does not have twice the well-being of a CD with an index value of 600.

Similarly, the socio-economic difference between two CDs with index values of 800 and 900, is not necessarily the same as the difference between two CDs with index values of 1050 and 1150.

Q: Can I compare the 1996 index values with those obtained from the 1991 product?

A: It is important that the index scores from the 1996 Census are not compared directly to the indexes based on the 1991 Census. For each census year the index values for CDs are standardised to have a mean of 1000 across Australia. This means that the difference between the scores of an area in 1991 and 1996 does not represent the change of socio-economic conditions in the area.

Boundaries of CDs in some areas have changed between censuses. The number of CDs in Australia increased from 31,401 in 1991 to 34,500 in 1996. Consequently, the boundaries of the higher geographic areas such as Statistics Local Area and Local Government Area may not be comparable.

Furthermore, some of the occupation variables in the 1996 indexes are different from those used in the 1991 indexes. This is because the occupation variables are based on the Australian Standard Classification of Occupations (ASCO) which was revised between the 1991 and 1996 Censuses. In addition, some of the variables involving income have used different income cut-offs, as the income ranges collected in the census changed in 1996 from what they were in 1991.

For further information on SEIFA96, including more answers to your questions, [click here](#).

Soon to be released: New Census Working Papers

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Census Working Papers are designed to assess and report on various aspects of census data quality. Many of the Census Working Papers are already available. The **Review of Enumeration of Indigenous Peoples** is now available via the ABS web site free of charge. This working paper provides an evaluation of the effectiveness of implementing the 1996 Indigenous Enumeration Strategy. The focus is on how the 1996 strategy worked at the National and State/Territory levels.

Recommendations from the **Review of Enumeration of Indigenous Peoples** include:

- continuation of the broad public relations strategy adopted in 1996 with strengthening in the use of local media and resources to make census communications effective in local situations,
- continuation of interviewing with special forms adapted for use in traditional communities and conducted by suitable members of each community wherever possible.
- extension of interviewing with the special forms to all communities (whether urban, rural or remote), where appropriate, to overcome cultural and/or literacy barriers to effective enumeration.

The following three Census Working Papers are expected to be released early in 2000.

The **Occupation Working Paper** provides an assessment of the quality of occupation data from the 1996 Census. The paper compares data from the 1996 Census to the August 1996

Labour Force Survey occupation data. The evaluation of the data quality may lead to some changes for the 2001 Census.

The **1996 Census Industry of Employment Data Quality Working Paper** contains:

- information about the question design of the industry of employment questions,
- a description of industry coding procedures used in the 1996 Census,
- a description of the quality management system used at the Data Processing Centre and how this was applied to industry coding,
- an analysis of the most frequently miscoded industries,
- a data comparison between 1996 Census industry of employment data and August 1996 Labour Force Survey industry of employment data, and
- a description of 2001 Census industry coding procedures.

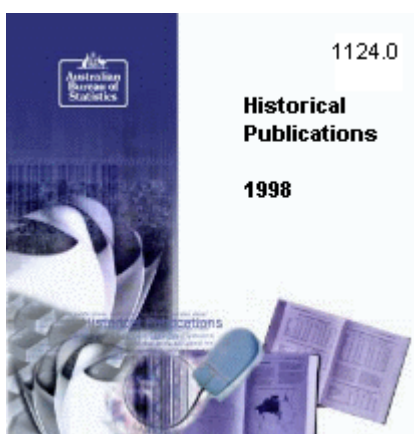
The **Income Working Paper** aims to provide a brief assessment of the quality of the data obtained from the income question in the 1996 Census. This paper also examines the changes to the question design implemented in the 1996 Census.

To obtain your copy of these working papers, [Click here to access them online.](#)

Historical Publications on CD-ROM Now Available

Historical Publications on CD-ROM Now Available

The entire range of printed publications released by the ABS during 1998 is now available on a two CD-ROM set. One CD-ROM contains all national publications, with the other containing all state publications.



A sample of the census publications that are available on **Historical Publications 1998 on CD-ROM** (ABS Cat. no. 1124.0) includes:

- 2001 Census: ABS Views on Content and Procedures (ABS Cat. no. 2007.0)
- 1996 Census of Population and Housing: Selected Family and Labour Force Characteristics, Australia 1996 (ABS Cat. no. 2017.0)
- 1996 Census of Population and Housing: Australia in Profile - A Regional Analysis (ABS Cat. no. 2032.0)
- 1996 Census of Population and Housing: Household Sample File (technical documentation) (ABS Cat. no. 2037.0)
- Information Paper: 1996 Census of Population and Housing: Socio-Economic Indexes for Areas, Australia (ABS Cat. no. 2039.0)

The publications are provided in Acrobat Format (PDF) and can be accessed by ABS catalogue number, broad subject and release date. Keyword searching is also possible using Acrobat Search.

This product provides an excellent information investment for you or your organisation.

For more information call the ABS bookshop in your State/Territory.

How is the Australian population counted?

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To mark Australia's projected population passing 19 million, we would like to take the opportunity to explain the difference between census counts, estimated resident population and population projection.

A **census count** is a count of every person who spent census night in Australia. These counts are released on two different bases: place of enumeration and place of usual residence.

Much of the information contained in census products and services is based on the **place of enumeration**. This means people were counted according to where they were actually staying on census night, 6 August 1996, as opposed to where they normally live. Information for this count is available for all geographic areas from Collection District (CD) level, which average 225 households in size. This type of count provides a snapshot at one point in time, in any given area. Holiday resorts at the Gold Coast may, for example, show a large enumeration count on census night compared with the usual residence count for that area.

Census counts at **place of usual residence** are based on where people usually live. For this count, characteristics of individuals are coded at the Statistical Local Area level and above. A Statistical Local Area (SLA), as defined in the Australian Standard Geographical Classification, can be a whole or part Local Government Area, or an unincorporated area. SLAs consist of one or more CDs.

The **estimated resident population** (ERP) is the official estimate of the population and uses the census usual residence count as a basis. It makes certain assumptions on how the population is growing and likely to grow since it was last officially estimated.

To calculate the ERP, census counts are adjusted to exclude overseas visitors, include residents temporarily abroad, and to account for under-enumeration* of the population in the 1996 Census (see table below).

ERP is calculated four times a year, to provide official, and up-to-date estimates of the population.

In addition to being more frequent than census counts, the ERP is adjusted to reflect the true population resident at a particular date. The table below provides an example of the difference between these two concepts.

Components of Estimated Resident Population, 6 August 1996 ('000)

census count , actual location	17,892.4
less overseas visitors	139.6
equals census count, place of usual residence	17,752.8
plus adjustment for under-enumeration	285.8
plus residents temporarily overseas	298.6
equals ERP on 6 August 1996 (census night)	18,337.2

- Under-enumeration: Although every effort is made by census collectors to locate every dwelling and household within their allocated area, sometimes this is not possible and can lead to an undercount. An undercount is possible for a number of other reasons. For a more detailed definition, please refer to the **1996 Census Dictionary** (ABS Cat. no. 2901.0).

Population projections are produced by the ABS twice between each census. They are based on the latest ERP and use a combination of assumptions about future levels of births, deaths and overseas migration. The projected populations reflect possible scenarios resulting from the particular combinations of assumptions used.

The ABS population clock uses the latest available ERP and the assumptions published in **Population Projections** (ABS Cat no. 3222.0) which most accurately reflect prevailing trends. Up to the end of September 1999, the latest ERP is the December 1998 figure, and the assumed components of growth used were:

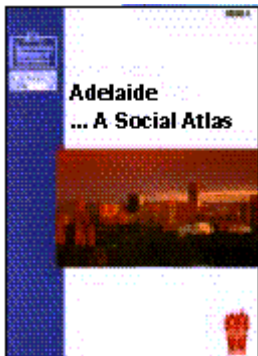
- Births - an average number of births per woman of 1.7
- Deaths - life expectancy at birth of 76.3 years for males and 81.8 years for females
- Net overseas migration - 90,000 per year.

From these assumptions the population is projected to grow by an average of 558 people per day - from 681 births, 369 deaths, and a net intake of 246 migrants.

[Click here to view the population clock.](#)

Making Data Real For Our Students

Making Data Real For Our Students



The **1996 Census Adelaide Social Atlas** has provided an invaluable resource for students and educators in a trial currently being conducted by the Primary Mathematics Association in South Australia.

A team of people, including a representative from the ABS, has worked to develop a set of mathematics challenges that focus on the use of the **Social Atlas** to develop students' skills in analysing and interpreting data. These challenges are currently being trialed in a range of school settings across Adelaide, and the Primary Mathematics Association is looking forward to sharing both the ideas and findings with others in the coming months.

What this research group is finding is that the strength of 1996 Census material lies in its authenticity. It is real data about real people. Consequently, the data provides both social issues for students to consider, as well as the mathematical concepts involved in analysing the information. The **Atlas** has also stimulated students to conduct their own investigations with many wanting to challenge, debate and explore the information provided.

Keep reading coming issues of **Census Update** for further information on this trial.

[Click here for more information on Social Atlases](#)

2001 Census - User Consultation

2001 Census - User Consultation

Although the next Australian Census of Population and Housing will not take place until 7 August 2001, planning for this massive operation is already well underway. The ABS is currently in the midst of a large user consultation phase, to evaluate your reactions to the 1996 Census Output Program.

Based on the results of this consultation, the ABS will develop specific proposals for the 2001 Census Output Program, including the development of prototypes for 2001 Census products and services. These prototypes will be circulated for comment to **Census Update** readers in July 2000.

Qualitative market research into census clients' views on both the overall 1996 Census output strategy and specific 1996 Census products and services was conducted in April this year. A number of important issues were identified in this research including general endorsement of the data being released in two phases, the need for strict adherence to published release dates, and the growing demand for on-line access to data. The views expressed in this research have formed the basis of proposals outlined in ABS Views on Census Output Strategy.

In other 2001 Census developments, the first major test of the main systems and procedures used in conducting a census has recently taken place. The first major census 'test', in which 20,000 people participated, occurred on 10 August 1999. Forms from this test are currently being processed and the answers received will help to identify and iron out any bugs before the 'dress rehearsal', to be conducted in May 2000. The dress rehearsal will involve a complete test of every system and procedure to be used in conducting the 2001 Census.

Census Update will continue to keep you informed of 2001 Census developments in upcoming editions. If you have any comments or questions regarding **ABS Views** please:

- e-mail census2001@abs.gov.au
- visit the Census pages
- call 1800 813 939

Using the Census to help Regional Victoria

Using the Census to help Regional Victoria

The Department of Infrastructure in Victoria has recently released a set of publications titled **Towns in Time: Analysis and Data, Census Statistics for Victoria's Towns and Rural Areas**. Using ABS Census data spanning 15 years, the publications have been specifically created for users of data from non-metropolitan areas of Victoria.

Data has been extracted from 1981 through 1996 Censuses of Population and Housing. Split into two volumes for easy use, information is provided on Victoria's 308 towns, 52 'rural' balances of local government areas, and the eight Murray Valley local government areas of New South Wales.

Some of the key variables identified for each of the regions are age structure, income, religion, household size and industry data.

Here are just two of the major highlights from Towns in Time for regional Victoria:

- there have been strong rates of population growth in coastal areas, especially those along the Bellarine Peninsula, Surf and Bass Coasts. This growth is based almost exclusively around the ageing of the population and the growth of 'lifestylers';
- population decreases have been recorded throughout the 1981-96 period in the dry-land farming areas and small service towns in the west of the state. Nevertheless, population in the larger centres of Warrnambool, Mildura and Horsham have all increased.

The publications offer quick comparisons between the sizes of different towns in the region or local government area. They also provide useful information for infrastructure and service planning at the local level.

To order your copy of the **Towns in Time** publication set, tick the box on the order form, visit the ABS Bookshop in your state/territory (ABS Cat. no. 8912.2), or contact the Department of Infrastructure's Bookshop on (03) 9655 8830.

Further information on regional Victoria is available from the ABS Consultancy Service in your state/territory.

For Richer, For Poorer

For Richer, For Poorer

We're always on the lookout for real-life examples of how census data is being used by the Australian community. This article by Adam Harvey appeared in the 'Daily Telegraph', on 8 May 1999, and used 1996 Census data to illustrate the socio-economic differences between two groups of "haves" and "have nots" in NSW. (Reproduced with permission).

Queen St, Barraba, is empty, save for a few battered utes and '80s four-wheel-drives, because no one can afford to stay. It's the poorest town in the State, according to the most recent census by the Australian Bureau of Statistics.

Midway between Tamworth and Inverell, Barraba is in a wide, dry belt of eucalypts and sheep paddocks so common in northern NSW. A few hundred kilometres west is the dense mulga scrub beneath Bourke, while the same distance to the east are the rainforests and hinterland hippies around Bellingen and Dorigo.

The median household income here in 1996 (the most recent figures) was \$363 a week. Before tax. The most common weekly wage is between \$120 and \$159.

Compare that with the wealthiest area in NSW - Ku-ring-gai Council, that wedge of green suburbs between Middle Harbour and the Pacific Hwy. Their names - Killara, Roseville, Linfield, Gordon, Pymble - sing of private schools, quarter-acre blocks, and late-model sedans.

Here the median weekly household income is \$1225, but the most common wage is even higher: between \$1500 and \$2000 per week. A pittance compared to the salaries drawn on Wyuna Rd, Point Piper, or Victoria Rd, Bellevue Hill - but these are earnings averaged from more than 100,000 people.

... In the 3065sq km around Barraba, just 10 people earn more than \$1500 a week. It was once one of the wealthiest grazing areas in the country, home to the famous 111-year-old Plumthorpe property on the Manilla River - 4000ha on the market recently for \$6 million.

... Ku-ring-gai is becoming more diverse. However, it's hardly a cultural melting pot. Two thirds of the locals are Australian-born. Seven per cent are British, 3000 of them are from Hong Kong, 1200 from China, then a scattering of Indians, Germans and Americans. Sixty-

seven of the 100,000 residents were born in Vietnam.

It is a pretty community with few flats rising above the lines of trees. There are almost no semi-detached homes, and 86 per cent of dwellings are stand-alone houses. Only 5 per cent of the residents are renting - the rest own, or are paying off their homes. There are seven people living in caravans, cabins or houseboats.

Contact us on **1800 813 939** or at **client.services@abs.gov.au** if you know of other case studies you'd like to see in **Census Update**.

About this Release

A periodic newsletter to keep clients informed of developments in Census products and services. Highlights recent and forthcoming releases, provides comments on census data and advises of user forums.

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